

Amendment

(Amendment Under Article 11)

To: Commissioner, Patent Office

1. INTERNATIONAL APPLICATION NO.

PCT/JP03/11966

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4. SUBJECT TO BE AMENDED

Description

Claim

5. DESCRIPTION OF AMENDMENT

As stated in the annexed.

(1) Amended in Description P. 2, L. 16, "first inventory quantity computing means for inputting incoming quantity information and outgoing quantity information of

the orderer of the parts and for computing a quantity of inventory of the parts at one of the stages from a difference between the incoming quantity information and the outgoing information; second inventory quantity computing means for inputting the incoming quantity information and the outgoing quantity information of the orderer of the parts and for computing quantities of inventory of the parts at the other stages from the difference between the incoming quantity information and the outgoing information; inventory information sending means for sending information on the quantity of inventory of the parts at the one of the stages and the quantities of inventory of the parts at the other stages via transmitting means; and inventory managing means for consolidating the sent inventory information to be centralized such that the inventory information is managed at a lump; wherein the inventory managing means outputs the quantity of inventory of the parts computed by the second inventory quantity computing means” to --- first inventory quantity computing means for inputting incoming quantity information and outgoing quantity information of the orderer of the parts and for computing a tentative quantity of inventory of the parts at one of the stages from a difference between the incoming quantity information and the outgoing information; second inventory quantity computing means for inputting the incoming quantity information and the outgoing quantity information of the orderer of the parts and for computing actual quantities of inventory of the parts at the other stages from the difference between the incoming quantity information and the outgoing information; inventory information sending means for sending information on the tentative quantity of inventory of the parts at the one of the stages and the actual quantities of inventory of the parts at the other stages via transmitting means; and inventory managing means for consolidating the sent inventory information to be centralized such that the inventory information is managed at a lump; wherein the inventory managing means outputs the actual quantity of inventory of the parts computed by the second inventory quantity computing means ---. (As underlined)

(2) Amended in P. 3, L. 15, “the quantity of inventory computed based on the incoming and outgoing quantity information of the part order, is regarded as the subject-to-subtraction quantity of inventory in computing the part order quantity” to --- the actual quantity of inventory computed based on the incoming and outgoing quantity

information of the part order, is regarded as the subject-to-subtraction quantity of inventory in computing the part order quantity ---. (As underlined).

(3) P. 4, L. 3 and 4 are deleted.

(4) Amended in P. 8, L. 9, “the parts B carried into the line side 34 become the property of orderer of the parts.” to --- the parts B carried into the temporary storage facility 32 become the property of orderer of the parts. ---. (As underlined).

(5) Amended in Claim 1, “b. first inventory quantity computing means for inputting incoming quantity information and outgoing quantity information of the orderer of the parts and for computing a quantity of inventory of the parts at one of the stages from a difference between the incoming quantity information and the outgoing information; c. second inventory quantity computing means for inputting the incoming quantity information and the outgoing quantity information of the orderer of the parts and for computing quantities of inventory of the parts at the other stages from the difference between the incoming quantity information and the outgoing information; d. inventory information sending means for sending information on the quantity of inventory of the parts at the one of the stages and the quantities of inventory of the parts at the other stages via transmitting means; and e. inventory managing means for consolidating the sent inventory information to be centralized such that the inventory information is managed at a lump; wherein the inventory managing means outputs the quantity of inventory of the parts computed by the second inventory quantity computing means to the part order quantity computing means as the subject-to-subtraction quantity of inventory in computing the part order quantity.” to --- b. first inventory quantity computing means for inputting incoming quantity information and outgoing quantity information of the orderer of the parts and for computing a tentative quantity of inventory of the parts at one of the stages from a difference between the incoming quantity information and the outgoing information; c. second inventory quantity computing means for inputting the incoming quantity information and the outgoing quantity information of the orderer of the parts and for computing actual quantities of inventory of the parts at the other stages from the difference between the incoming quantity information and the outgoing information; d. inventory information sending means for sending information on the tentative quantity of inventory of the parts at the

one of the stages and the actual quantities of inventory of the parts at the other stages via transmitting means; and e. inventory managing means for consolidating the sent inventory information to be centralized such that the inventory information is managed at a lump; wherein the inventory managing means outputs the actual quantity of inventory of the parts computed by the second inventory quantity computing means to the part order quantity computing means as the subject-to-subtraction quantity of inventory in computing the part order quantity. --- (As underlined).

(Note: the numbers of pages and lines in Specification and Claim are expressed in accordance with the English text.)

6. PAPERS ATTACHED HERETO

Description	A replaced paper of P. 2, 3, 6.	1
Claim	A replaced paper of P. 13.	1

can manage the quantity of inventory in time-sequence in the lead time until the parts are actually delivered to be used in product manufacturing after ordered, and can manage inventory appropriately regardless of differences in the part distribution route.

5 In order to achieve the object, as recited in claim 1 described below, the present invention is configured to have a system for managing a quantity of inventory of parts constituting a product, in which distribution of the parts, including shipment by a part supplier, delivery to an orderer who orders the parts to be used in manufacturing the product, is divided into a plurality of stages in time-sequence,
10 comprising: part order quantity computing means for computing a part order quantity to be directed to the part supplier, by subtracting a subject-to-subtraction quantity of inventory, from a required quantity of the parts computed based on a production schedule; first inventory quantity computing means for inputting incoming quantity information and outgoing quantity information of the orderer of
15 the parts and for computing a tentative quantity of inventory of the parts at one of the stages from a difference between the incoming quantity information and the outgoing information; second inventory quantity computing means for inputting the incoming quantity information and the outgoing quantity information of the orderer of the parts and for computing actual quantities of inventory of the parts at the other
20 stages from the difference between the incoming quantity information and the outgoing information; inventory information sending means for sending information on the tentative quantity of inventory of the parts at the one of the stages and the actual quantities of inventory of the parts at the other stages via transmitting means; and inventory managing means for consolidating the sent inventory information to
25 be centralized such that the inventory information is managed at a lump; wherein the inventory managing means outputs the actual quantity of inventory of the parts computed by the second inventory quantity computing means to the part order quantity computing means as the subject-to-subtraction quantity of inventory in computing the part order quantity.

30 Thus, since it is configured such that, the distribution of the parts is divided into a plurality of stages in time-sequence and the quantities of inventory at the

stages are managed at a lump, it becomes possible to manage the quantity of inventory in the distribution route in-time sequence fashion, thereby enabling to recognize the quantity of inventory more accurately.

5 Further, since it is configured such that, the incoming quantity information and outgoing quantity information of the part orderer are inputted at the stages such that the quantity of inventory can be computed from the difference therebetween, it becomes possible to recognize the quantity of inventory at each stage more accurately.

10 Further, since it is configured such that, among of the quantities of inventory at stages, the actual quantity of inventory computed based on the incoming and outgoing quantity information of the part order, is regarded as the subject-to-subtraction quantity of inventory in computing the part order quantity, it becomes possible to implement inventory management regardless of differences in the part distribution route.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an overall schematic view of the part inventory management system according to an embodiment of the present invention;

FIG. 2 is a flowchart showing the operation of computation of the part order quantity implemented in a host computer of the system illustrated in FIG. 1;

FIG. 3 is a table showing the inventory information displayed on the displays of each terminal computer on the basis of an inventory database of the system illustrated depicted in FIG. 1; and

FIG. 4 is an explanatory view showing inventory fluctuation in part distribution route divided into stages.

BEST MODE FOR CARRYING OUT THE INVENTION

The part inventory management system according to an embodiment of the present invention will be described hereinafter with reference to the accompanying drawings.

FIG. 1 is an overall schematic view of the part inventory management system according to this embodiment. The reference numeral 10 in the figure generally indicates the part inventory management system.

The part inventory management 10 has a host computer 12 provided with various types of databases and arithmetic programs (described hereinafter), and a plurality of terminal computers disposed at the stages or processes of the part distribution route (the transport route of the parts from the part supplier(s) to the assembly plant) and connected to the host computer 12 via the internet or other communication network.

First explaining the part distribution route (indicated by the thick-lined arrow) with reference to the figure, a first part manufacturer (part supplier) 14 manufactures or produces parts (a group of parts) A in response to an order from an assembly plant (which orders the parts) 16. The first part manufacturer 14 is provided with a first part manufacturer computer 14C that sends the shipping quantity of parts A to the host computer 12, receives the order information of the parts A computed by the host computer 12 as described hereinafter, and displays the results on a display.

The parts B manufactured by the second part manufacturer 40 are loaded onto a third transporter (freight truck) 42 and are shipped to the assembly plant 16. The parts B are unloaded when the third transporter 42 carrying the parts B arrives at the parking lot 30 of the assembly plant 16. The incoming quantity and the outgoing quantity of parts B (incoming quantity information and outgoing quantity information from the second part manufacturer 40) are inputted or entered to the parking lot computer 30C disposed at the parking lot 30, in the same manner as the case of parts A. The parking lot computer 30C computes the quantity of inventory in the parking lot 30 from the difference between the incoming quantity and outgoing quantity of parts B thus inputted, and sends the result to the host computer 12.

The parts B unloaded at the parking lot 30 are carried into the temporary storage facility 32 after they are accepted by the orderer and the type and quantity of the parts B have been checked. Computation of the quantity of inventory of the parts B is performed from this acceptance by the orderer, and ownership of the parts B for which acceptance is completed is transferred from the second part manufacturer 40 to the orderer. Specifically, the parts B carried into the temporary storage facility 32 become the property of orderer of the parts.

The incoming quantity and the outgoing quantity of parts B (incoming quantity information and outgoing quantity information of the ordering party) are inputted or entered to the temporary storage facility computer 32C disposed at the temporary storage facility 32, in the same manner as in the case of parts A. The temporary storage facility computer 32C computes the quantity of inventory (temporarily stored quantity) in the temporary storage facility 32 from the difference between the incoming quantity and outgoing quantity of parts B thus inputted, and sends the result to the host computer 12.

The parts B temporarily stored in the temporary storage facility 32 are then carried into the line side 34. The incoming quantity and the outgoing quantity of parts B (incoming quantity information and outgoing quantity information of the ordering party) are inputted or entered to the line side computer 34C disposed at the line side 34, in the same manner as in the case of parts A. The line side computer 34C computes the quantity of inventory in the line side 34 from the

difference between the incoming quantity and outgoing quantity of parts B (quantity used in manufacturing) thus inputted, and sends the result to the host computer 12.

The finished products are sold to users via a dealer(s) 44. The dealer(s) 44 is provided with a dealer computer 44C, which sends the information (type or quantity) of the products sold (or contracted) to the host computer 12.

The terminal computers (except for the dealer computer 44C) disposed in the plurality of temporally sequential stages along the distribution route thus compute